

What is claimed is:

1           1.     A method comprising:  
2                 partitioning a database corresponding to object images into a first partition and  
3     a second partition based on a fuzzy similarity analysis of a measure of the object images to a  
4     first threshold.

1           2.     The method of claim 1, further comprising:  
2                 partitioning each of the first partition and the second partition into at least two  
3     portions so that the measure of the object images having a fuzzy similarity more than or equal  
4     to a second threshold cluster into a selected one of the at least two portions.

1           3.     The method of claim 1 further comprising:  
2                 deriving a feature set for each of the object images from contours of at least  
3     two views of objects corresponding to each of the object images.

1           4.     The method of claim 1, further comprising determining a feature set from  
2     image content of a query object image.

1           5.     The method of claim 4, further comprising using fuzzy logic to search the  
2     database for at least one image similar to the query object image.

1           6.     The method of claim 5, wherein using the fuzzy logic comprises comparing  
2     one object image from each of said first and second partitions with said query object image.

1           7.     The method of claim 6, further comprising:  
2                 based on the comparison, obtaining the at least one similar image as a match in  
3     the partition that indicates maximum similarity with said query object image.

- 1           8.     The method of claim 1, further comprising:  
2                 forming a similarity matrix for the object images within the database before  
3     partitioning the database.
- 1           9.     A method comprising:  
2                 obtaining a query image; and  
3                 searching a database corresponding to object images for a solution set having a  
4     maximum similarity to the query image using fuzzy logic.
- 1           10.    The method of claim 9, wherein searching the database comprises comparing a  
2     single image of each of a plurality of sets within the database to the query image.
- 1           11.    The method of claim 10, wherein comparing the single image comprises  
2     comparing a feature vector of the query image to a corresponding feature vector of the single  
3     image.
- 1           12.    The method of claim 9, further comprising partitioning the database into a  
2     plurality of sets based on fuzzy logic theory.
- 1           13.    The method of claim 12, further comprising partitioning the database into a  
2     plurality of levels, each of the levels corresponding to a similarity threshold.
- 1           14.    The method of claim 9, further comprising displaying at least one object image  
2     corresponding to the solution set.

1           15.    An article comprising a machine-readable storage medium containing  
2 instructions that if executed enable a system to:  
3           obtain a query image; and  
4           search a database corresponding to object images for a solution set having a maximum  
5 similarity to the query image using fuzzy logic.

1           16.    The article of claim 15, further comprising instructions that if executed enable  
2 the system to compare a single image of each of a plurality of sets within the database to the  
3 query image.

1           17.    The article of claim 15, further comprising instructions that if executed enable  
2 the system to partition the database into a plurality of sets based on fuzzy logic.

1           18.    The article of claim 16, further comprising instructions that if executed enable  
2 the system to compare a feature vector of the query image to a corresponding feature vector of  
3 the single image.

1           19.    A system comprising:  
2           a dynamic random access memory containing instructions that if executed enable the  
3 system to partition a database corresponding to object images into a first partition and a  
4 second partition based on a fuzzy similarity analysis of a measure of the object images to a  
5 first threshold; and  
6           a processor coupled to the dynamic random access memory to execute the instructions.

1           20.    The system of claim 19, further comprising instructions that if executed enable  
2   the system to derive a feature set for each of the object images from contours of at least two  
3   views of objects corresponding to each of the object images.

1           21.    The system of claim 19, further comprising instructions that if executed enable  
2   the system to use fuzzy logic to search the database for at least one image similar to a query  
3   object image.

1           22.    The system of claim 21, further comprising instructions that if executed enable  
2   the system to obtain the at least one similar image as a match in the partition that indicates  
3   maximum similarity with said query object image.

1           23.    The system of claim 22, further comprising a display coupled to the processor  
2   to display the query object image and the at least one similar image.